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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/500,784	11/03/2004	Kang Li	TNX02-01 (Case 0056)	8464

7590 02/23/2007

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EXAMINER	
HUYNH, PHUONG N	
ART UNIT	PAPER NUMBER
1644	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/23/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/500,784	LI ET AL.	
	Examiner	Art Unit	
	Phuong Huynh	1644	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *three* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 December 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *37-42* is/are pending in the application.

4a) Of the above claim(s) *40-42* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *37-39* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☒ Other: *sequence alignment*.

DETAILED ACTION

1. Claims 37-42 are pending.

2. Applicant's election of Group 5 Claims 6-8 (now claims 37-39) drawn to an antibody or binding fragment thereof specifically binds to SEQ ID NO: 2 filed 12/11/06, is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Applicants request the withdrawal of the restriction of Group 5 and Group 12 on the grounds that the special technical feature is the antibody of claim 37. Applicants state that the reference cited (WO98/30582) does not disclose any function or association of this peptide with mast cells claim is acknowledged.

In response, the request for withdrawal of the restriction of Group 5 and Group 12 based on the ground that the special technical feature is the antibody in which the cited reference does not disclose is acknowledged. However, a closer inspection of the WO98/30582 publication, of record, indicates that the reference teaches an antibody such as monoclonal antibody that binds to EH203_2 (reference SEQ ID NO: 27), which has 166 amino acid residues identical to the claimed SEQ ID NO: 2 (see page 16, line 32-33, page 26, page 35, lines 22-23, page 56, lines 33-34, in particular). Given the long stretch of identical amino acids to which the reference antibody binds, the reference antibody inherently also binds to the claimed polypeptide of SEQ ID NO: 2. Since Applicant's inventions do not contribute a special technical feature when viewed over the prior art they do not have single general inventive concept and lack unity of invention.

3. Claims 40-42 are withdrawn from further consideration by the examiner, 37 C.F.R. 1.142(b) as being drawn to a non-elected invention.

4. Claims 37-39, drawn to an antibody or binding fragment thereof specifically binds to SEQ ID NO: 2, are being acted upon in this Office Action.

5. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

6. Claim 37 is rejected under 35 U.S.C. § 101 because the claimed invention is directed to non-statutory subject matter, a product of nature.

Claim 1 recites "An antibody ...specific for SEQ ID NO: 2" .

As written, claim 1 reads on naturally occurring antibody such as autoantibody that binds to SEQ ID NO: 2. Amending the claim to encompass "An isolated antibody..." that do not occur in nature would obviate this rejection.

7. Claims 37-39 are rejected under 35 U.S.C. 101 because the claimed invention is not supported by either a specific and/or substantial asserted utility, a credible or a well established utility.

Claims 37-39 are drawn to antibody such as monoclonal, humanized, human, bispecific and heteroconjugated antibody or binding fragment thereof that binds specifically to SEQ ID NO: 2. The polypeptide of SEQ ID NO: 2 to which the claimed antibody binds is not supported by either a specific and substantial asserted utility or a well-established utility.

The specification discloses a human mast cell-expressed membrane protein (MCEMP) that is 187 amino acids in length having the sequence shown in SEQ ID NO: 2. The protein has an intercellular domain consisting of amino acids 1 through 82, a transmembrane domain comprising amino acids 83 through 105, and an extracellular domain comprising amino acids 106 through 187. The polypeptide is used to make antibodies that bind to the proteins, see specification, pages 5-6. The antibodies function as MCEMP agonists to activate the production of mast cell mediators or as antagonists to inhibit the production of mast cell proinflammatory mediators such as histamine, TNFα and leukotrienes. The specification further discloses the agonist and antagonists antibodies are used for the treatment of various diseases such as the ones disclosed at page 6, paragraph 47. The specification also discloses the antibodies are useful for screening or identifying mast cells expressing said protein, see specification at page 15. The specification asserts that the antibody is useful for diagnosing the predisposition of a patient develop any MCEMP-1 related disease. However, no MCEMP specific disease has been identified in any patient.

However, the disclosed isolated MCEMP protein does not have a substantial or a well established utility because the protein is not supported by a specific asserted utility. The disclosed use(s) of the protein mentioned above such as making antibodies are not specific and are generally applicable to any protein. Since the same can be done with any polypeptide, the asserted utility is not specific for SEQ ID NO: 2.

Furthermore, the specification is silent with respect to whether the full-length protein has any functional or biological activity. There is no recognition in the art that sequence with identity predicts biological function.

Attwood et al, The Babel of Bioinformatics, Science Vol. 290 No 5491: 471-473, 2000; PTO 892) teach that protein function is context-dependent and the state of the art of making functional assignments merely on the basis of some degree of similarity between sequences and the current structure prediction methods is unreliable.

Skolnick et al (From genes to protein structure and function: novel applications of computational approaches in the genomic era, Trends in Biotech. 18(1): 34-39, Jan 2000; PTO 892) teach that squence-based methods for function prediction are inadequate and knowing a protein's structure does not necessary tell one it's function (See entire document, Abstract in particular).

Since no activity or function has been assigned to SEQ ID NO: 2 other than the fact that it expresses by mast cell, significant further research would be required of one skilled artisan to determine what function does SEQ ID NO: 2 has and then determine whether it can be used to develop diagnostic or therapeutic composition for specific immune diseases such as the list disclosed at page 6. Consequently, further research is required to identify or reasonably confirm a substantial "real world" utility for the protein of SEQ ID NO: 2. Since the protein has no specific utility, the antibody to the protein as claimed has no utility.

As such, further research would be required. See Brenner v. Manson, 383 U.S. 519, 535-36, 148 USPQ 689, 696 (1966), the court indicates that "a patent is not a hunting license. It is not a reward for the search, but compensation for its successful conclusion." A patent is therefore not a license to experiment. Because the claimed invention is not supported by a specific asserted utility for the reasons set forth, credibility of any utility cannot be assessed.

8. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

9. Claims 37-39 are also rejected under 35 U.S.C. 112, first paragraph. Specifically, since the claimed invention is not supported by either a specific and substantial asserted utility for the

reasons set forth in the rejection under 35 USC 101 above, one skilled in the art clearly would not know how to use the claimed invention.

Furthermore, the specification fails to provide guidance as how to use the antibody specific to SEQ ID NO: 2 for treating any and all diseases such as the ones disclosed at page 6 or diagnosing the predisposition of which disease in any patient.

The specification discloses only three monoclonal antibodies produced by clone AX1C11 both bound to both MCEMP1 and soluble MCEMP1T-Fcγ1, while antibody clones AZX1A8 and AZ3H6 only bound to full length fusion protein. The specification further discloses that ZA1A8 and AZ3H6 specifically interact with C-terminal region of MCEMP1 while clone AZ1C11 interacts with the N-terminal region of MCEMP1, see specification at page 25. The antibodies detect MCEMP expressed by mast cells, see specification at page 26.

The specification does not teach how to treat or diagnose the predisposition of which diseases using any antibody or binding fragment thereof specific to SEQ ID NO: 2. In addition to the lack of guidance as to the function of SEQ ID NO: 2, the specification does not teach whether SEQ ID NO: 2 overexpression is associated with which disease, much less predicting the predisposition of any patient to such immune disease using antibody or antigen binding fragment that binds specifically to SEQ ID NO: 2. Further, there is a lack of working example showing the antibody has any agonistic or antagonistic activity, in turn, would be useful for treating any autoimmune diseases, any autoimmune diseases such as diabetes mellitus, rheumatoid arthritis, chronic inflammatory demyelinating diseases, primary biliary cirrhosis, granulomatous hepatitis etc.

The examiner is aware that the specification need not contain an example if the invention is otherwise disclosed in such manner that one skilled in the art will be able to practice it without undue amount of experimentation. Lack of *in vivo* working example, however, is a factor to be considered, especially in a case involving an unpredictable and undeveloped art.

The WO 98/30582 publication (of record) teaches a protein such as AAV40509 that is 92.9% identical to the claimed SEQ ID NO: 2 and antibody that binds to the reference protein (see enclosed sequence alignment, page 56, lines 33-34, in particular). The WO98/30582 publication teaches the protein may play a role in the metastatic spread of cancerous cells instead of inflammation or autoimmune diseases as disclosed by instant application (see page 57, line 5, in particular).

Since the functions associated with SEQ ID NO: 2 are not enabled and overexpression of SEQ ID NO: 2 is not correlated with any disease, predicting which antibody is efficacious in diagnosing and/or treating which disease is well outside the realm of routine experimentation.

For these reasons, the specification as filed fails to enable one skill in the art to practice the invention without undue amount of experimentation. As such, further research would be required to practice the claimed invention.

10. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

11. Claim 39 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 39 recites the limitation "a heteroconjugate" in line 2. There is insufficient antecedent basis for this limitation in the claim. This is because the antibody in base claims 38 and 37 is unconjugated and suddenly the antibody in claim 39 becomes heteroconjugated antibody. Further, the specification does not define the term antibody to include heteroconjugate antibody. Finally, it is ambiguous as to whether the "heteroconjugate" is from the antibody specific to SEQ ID NO: 2 or from another entirely different antibody.

Claim 39 recites the limitation "bispecific" in line 2. There is insufficient antecedent basis for this limitation in the claim. This is because the monoclonal antibody in the base claim 38 is monospecific and now suddenly the antibody becomes bispecific. Further, it is not clear the binding specificity of the other arm since it is a bispecific antibody.

12. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office Action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

13. Claims 37-39 are rejected under 35 U.S.C. 102(b) as being anticipated by WO98/30582 publication (of record, July 16, 1998; PTO 892).

The WO 98/30582 publication, of record, teaches a protein such as AAV40509 that is 92.9% identical to the claimed SEQ ID NO: 2 and antibody that binds to the reference protein (see enclosed sequence alignment, page 56, lines 33-34, in particular). The WO 98/30582 publication further teaches an antibody such as a monoclonal antibody that binds to another protein such as EH203_2 (reference SEQ ID NO: 27), which has a long stretch of 166 amino acid residues identical to the claimed SEQ ID NO: 2 (see page 16, line 32-33, page 26, page 35, lines 22-23, page 56, lines 33-34, in particular). Given the long stretch of identical amino acids to which the reference antibody binds, the reference antibody inherently also binds to the claimed polypeptide of SEQ ID NO: 2. Since the Patent Office does not have the facilities for examining and comparing the antibody of the instant invention to those of the prior art, the burden is on applicant to show that the prior art antibody is different from the claimed antibody. See In re Best. 562 F.2d 1252, 195 USPQ 430(CCPA 1977). The WO98/30582 publication also teaches a label conjugated antibody (heteroconjugate antibody) for detection assays (see page 35, line 32-34, page 56, lines 33-34, in particular). Thus, the reference teachings anticipate the claimed invention.

14. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 103(a) that form the basis for the rejections under this section made in this Office Action:

A person shall be entitled to a patent unless:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

15. This application currently names joint inventors. In considering Patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

16. Claim 37 is rejected under 35 U.S.C. 103(a) as being unpatentable over WO 98/30582 publication (of record, July 16, 1998; PTO 892) in view of Harlow *et al* (in Antibodies a Laboratory Manual, 1988, Cold Spring harbor laboratory publication, Cold Spring Harbor, NY, pages 626-629; PTO 892).

The teachings of the WO98/30582 publication have been discussed supra. The WO 98/30582 publication further teaches the reference antibody is useful for diagnostic reagents and therapeutics for condition such as cancer associated with the reference protein (see page 57, lines 1-2, in particular).

The invention in claim 37 differs from the teachings of the reference only in that the antibody specifically for SEQ ID NO: 2 is a binding fragment instead of a whole antibody.

Harlow *et al* further teach a method of producing antibody fragment such as Fab or $F(ab')_2$ fragment (See page 626-629, in particular). Harlow *et al* further teach that the problems of using multivalent antibodies on mammalian cells often will lead to capping and internalization of the antigen which can be overcome by using fragments of antibodies (See page 626 in particular).

Therefore, it would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to produce antibody fragment as taught by Harlow *et al* with the antibody that bind to EH203_2 (reference SEQ ID NO: 27), which has a long stretch of 166 amino acid residues identical to the claimed SEQ ID NO: 2 or the antibody that binds AAV40509 that is 92.9% identical to the claimed SEQ ID NO: 2 as taught by WO98/30582 publication. From the combined teachings of the references, it is apparent that one of ordinary skill in the art would have had a reasonable expectation of success in producing the claimed invention.

One having ordinary skill in the art would have been motivated to make antibody fragment because Harlow *et al* teach that the advantage of using antibody fragment can overcome the problem of capping and internalization of the antigen on mammalian cell when using multivalent antibodies (See page 626, in particular). The WO 98/30582 publication teaches the reference antibody is useful for diagnostic reagents and therapeutics for condition such as cancer associated with the reference protein (see page 57, lines 1-2, in particular).

17. Claims 37-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 98/30582 publication (of record, July 16, 1998; PTO 892) in view of US Pat No. 6,180,370B (filed June 1995; PTO 892).

The teachings of the WO 98/30582 publication have been discussed supra. The WO 98/30582 publication further teaches the reference antibody is useful for diagnostic reagents and therapeutics for condition such as cancer associated with the reference protein (see page 57, lines 1-2, in particular).

The invention in claim 39 differs from the teachings of the reference only in that the antibody specifically for SEQ ID NO: 2 is a humanized antibody instead of a murine monoclonal antibody.

The '370 patent teaches a method of producing humanized antibodies (See column 44 line 33; column 68 lines 8-44, in particular). The advantages of humanized antibody are that the antibody binds with strong affinity to a predetermined antigen and remain nonimmunogenic in humans and yet be easily and economically produced in a manner suitable for therapeutic formulation and other uses (See column 2, lines 29-34, in particular).

Therefore, it would be been obvious to one having ordinary skill in the art at the time the invention was made to produce humanized antibody as taught by the '370 patent using the murine monoclonal antibody that binds to EH203_2 (reference SEQ ID NO: 27), which has a long stretch of 166 amino acid residues identical to the claimed SEQ ID NO: 2 or the antibody that binds AAV40509 that is 92.9% identical to the claimed SEQ ID NO: 2 as taught by the WO98/30582 publication. From the combined teachings of the references, it is apparent that one of ordinary skill in the art would have had a reasonable expectation of success in producing the claimed invention.

One having ordinary skill in the art at the time the invention was made would have been motivated with an expectation of success to produce humanized antibody because the '370 patent teaches that the advantages of humanized antibody are that the antibody binds with strong affinity to a predetermined antigen and remain nonimmunogenic in humans and yet be easily and economically produced in a manner suitable for therapeutic formulation and other uses (See column 2, lines 29-34, in particular). The WO98/30582 publication teaches the reference antibody is useful as a diagnostic reagent and as a therapeutic for conditions associated with the reference protein (see page 57, lines 1-2, in particular).

18. Claims 37-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 98/30582 publication (of record, July 16, 1998; PTO 892) in view of WO 96/34096 publication (published Oct 1996; PTO 892).

The teachings of the WO 98/30582 publication have been discussed supra. The WO98/30582 publication further teaches the reference antibody is useful for diagnostic reagents and therapeutics for conditions associated with the reference protein (see page 57, lines 1-2, in particular).

The invention in claim 39 differs from the teachings of the reference only in that the antibody specifically for SEQ ID NO: 2 is a human antibody instead of a murine monoclonal antibody.

The WO 96/34096 publication teaches a method of producing human antibody to any antigen such as human EGFR (See entire document, page 13, lines 33-35, page 14, line 25, claim 18 of WO 96/34096 publication, in particular). The WO 96/34096 publication teaches the advantage of the human antibody is that it is less immunogenic since it is a fully human antibody (See page 1, lines 28-35, in particular).

Therefore, it would be been obvious to one having ordinary skill in the art at the time the invention was made to make human antibody that bind to SEQ ID NO: 2 by substituting the antigen EGFR as taught by the WO 96/34096 publication for the antigen EH203_2 (reference SEQ ID NO: 27), which has a long stretch of 166 amino acid residues identical to the claimed SEQ ID NO: 2 or the antibody that binds AAV40509 that is 92.9% identical to the claimed SEQ ID NO: 2 as taught by the WO98/30582 publication. From the combined teachings of the references, it is apparent that one of ordinary skill in the art would have had a reasonable expectation of success in producing the claimed invention.

One having ordinary skill in the art at the time the invention was made would have been motivated with an expectation of success to produce human antibody because fully human antibody is less immunogenic as taught by the WO 96/34096 publication (See page 1, lines 28-35, in particular). The WO98/30582 publication teaches antibody to the reference proteins is useful for diagnostic reagents and therapeutics for conditions associated with the reference protein (see page 57, lines 1-2, in particular).

19. Claims 37-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 98/30582 publication (of record, July 16, 1998; PTO 892) in view of US Pat No 6,132,729 (Oct 2000, PTO 892).

The teachings of the WO 98/30582 publication have been discussed supra. The WO98/30582 publication further teaches the reference antibody is useful for diagnostic reagents and therapeutics for conditions such as cancer associated with the reference protein (see page 57, lines 1-2, in particular).

The invention in claim 39 differs from the teachings of the reference only in that the antibody specifically for SEQ ID NO: 2 is a bispecific antibody instead of monospecific monoclonal antibody.

The '729 patent teaches bispecific antibody having the specificity of desired targets for tumor treatment and the bispecific antibody is useful for targeting diverse tumor targets (See column 74, lines 42-52, column 75-76, in particular).

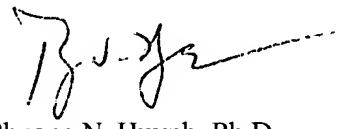
Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to produce bispecific antibody as taught by the '729 patent using the CDRs from the monoclonal antibody that binds to EH203_2 (reference SEQ ID NO: 27), which has a long stretch of 166 amino acid residues identical to the claimed SEQ ID NO: 2 or the antibody that binds or the antibody that binds AAV40509 that is 92.9% identical to the claimed SEQ ID NO: 2 that is 92.9% identical to the claimed SEQ ID NO: 2 as taught by the WO 98/30582 publication and other antigen of interest for targeting tumor. From the combined teachings of the references, it is apparent that one of ordinary skill in the art would have had a reasonable expectation of success in producing the claimed invention.

One having ordinary skill in the art at the time the invention was made would have been motivated with an expectation of success to produce bispecific antibody because the '729 patent teach that bispecific antibody having the specificity of desired targets for tumor treatment is well known in the art and is useful for against diverse tumor targets (See column 74, lines 42-52, column 75-76, in particular). The WO 98/30582 publication teaches antibody to the reference proteins is useful for as diagnostic reagents and therapeutics for conditions such as cancer associated with the reference protein (see page 57, lines 1-2, in particular).

20. No claim is allowed.

21. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuong Huynh "NEON" whose telephone number is (571) 272-0846. The examiner can normally be reached Monday through Thursday from 9:00 a.m. to 6:30 p.m. and alternate Friday from 9: 00 a.m. to 5:30 p.m. A message may be left on the examiner's voice mail service. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Chan can be reached on (571) 272-0841. The IFW official Fax number is (571) 273-8300.

22. Any information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Phuong N. Huynh, Ph.D.
Patent Examiner
Technology Center 1600
February 16, 2007

<!--StartFragment-->WO9830582-A2.
XX
PD 16-JUL-1998.
XX
PF 09-JAN-1998; 98WO-US000289.
XX
PR 09-JAN-1997; 97US-00780890.
PR 08-JAN-1998; 98US-00004680.
XX
PA (GEMY) GENETICS INST INC.
XX
PI Jacobs K, Mccoy JM, Lavallie ER, Racie LA, Merberg D, Treacy M;
PI Spaulding V, Agostino MJ;
XX
DR WPI; 1998-413681/35.
DR N-PSDB; AAV40509.
XX
PT New isolated nucleic acids and secreted proteins - obtained from human
PT foetal kidney, human adult retina, human foetal brain, human adult brain
PT and human adult blood cDNA libraries.
XX
PS Claim 36; Page 82; 103pp; English.
XX
CC This is the amino acid sequence of novel human secreted protein EH203_2
CC as predicted from a human adult blood (peripheral blood mononuclear cells
CC treated in vivo with granulocyte colony stimulating factor) cDNA clone
CC (see AAV40509). The clone was isolated using methods which are selective
CC for cDNAs encoding secreted proteins, or was identified as encoding a
CC secreted or transmembrane protein on the basis of computer analysis of
CC the amino acid sequence of the encoded protein. The invention relates to
CC 9 cDNA clones (see AAV40501-09), all deposited as ATCC 98290, that code
CC for human secreted proteins (see AAW29648-56) of the foetal kidney or
CC brain, or adult retina, brain or blood. Mammalian host cells and methods
CC of producing the (especially mature) polypeptides are claimed. The
CC polynucleotides and polypeptides can be used as e.g. nutritional sources
CC or supplements or may exhibit e.g. cytokine and cell proliferation or
CC differentiation activity, immunostimulant or immunosuppressive activity,
CC haematopoiesis regulating activity, receptor/ligand activity,
CC antiinflammatory activity, cadherin or tumour invasion suppressor
CC activity, tumour inhibition activity or other activities. EH203_2 protein
CC shows some sequence similarity to a number of database sequences
XX
SQ Sequence 174 AA;

Query Match 92.9%; Score 896; DB 2; Length 174;
Best Local Similarity 99.4%; Pred. No. 9e-85;
Matches 173; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

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